

# Introduction to Human Biology 101

OC OC

## Part 2 Part 3

Lso'na rushed along the narrow corridors of the space station, her talons trying to find purchase on the metallic floor to speed her up. It was futile however, as they merely slid off the superior alloy, she knew she'd be late to class again.

Decidedly, she needed to work more on her sleeping pattern but her findings had kept her awake all night. Entering the science lab, she quickly took her seat hoping not to get noticed but to no avail. Others would gladly kill her to have the chance she had, to attend the prestigious Tar Meena Academy. The only of its kind, an orbital station devoted to the training of elite students. Simply graduating from here meant opportunities came to you, not the other way around.

Being late was completely unacceptable and she mentally kicked herself for it.

"Stayed up late again Lso'na?" Shot out the teacher, Mrs Moldrin, an octopus type of alien species and their science teacher.

Lso'na meekly nodded, trying to not cause a scene. Satisfied with the class attendance, Mrs. Moldrin began her lecture. .

"Well, I'll forgive you since we've got some special material to cover today. Have any of you ever heard of a species called 'humans'?"

The students conferred amongst each other, whispering back and forth but found no answer. Mrs Moldrin was slightly disappointed but the odds that they would know were very slim.

Well I suppose even geniuses can get stumped once in a while she thought.

She was about to spoil the details when Lso'na lifted her paw.

The teacher gestured in her direction with her tentacles, giving her permission to speak.

"Humans are a new species found in the corner of sector C7-B. They are bipedal and are on a path to soon discover FTL travel."

She clasped her tentacles together, beaming with pride.

"Excellent. That is the gist of it yes. I am surprised you know about them, until yesterday, they were classified information."

While the information may have been classified, having a father who's an ambassador to the federation can certainly help with that. Lso'na spent a bit of time browsing through her father's personal files while he was busy, finding out about humans last night. The teacher continued on, drawing Lso'na from her train of thought.

"In fact, today, we will be learning about human biology and anatomy. It is a rather interesting topic in and of itself but even more so because they are nothing like what we've ever seen for a pre-FTL species!"

This piqued the students' interest and curiosity, notably the militaristic ones who were always out looking for new foes and their weaknesses.

"Let us begin with the basics then. In order to properly talk about humans, since most of our information on them comes from records of their planetary wide available resource network, you will need to understand measurements as it pertains to them. It's much simpler to explain the length of a human minute or a human centimeter than translate for every particular scenario."

Reaching for her computer with her tentacles, Mrs Moldrin activated a program that displayed the information on the student's portable computers.

"Now that we have this established, humans are bipedal creatures as Lso'na explained, furthermore they can be categorized as mammals. They possess two appendages that they refer to as arms. These arms have a hand, which enables them to complete complex motor tasks in lieu of other adaptations such as technology or telekinesis. For moving, they stand on two legs which are balanced with feet. On every feet is 5 individual toe, a toe being a smaller limb that helps them with balance."

One of the students raised a wing.

"You have a question?"

"Yes. So they've only recently been discovered? Have we been looking into them for some time and only recently disclosed this information?"

"I'm afraid I'm not at liberty to disclose that as this information is still under a level 2 quarantine. Now, back to their biology."

"The human has an endoskeleton, its body resting on these bones. Human bones are primarily made of calcium but other materials like collagens, phosphate and trace amounts of other substances. These bones, depending on the density and their purpose, can withstand up to 8000 kilo of weight before being crushed. Naturally, much less force is required to shatter one or cut through one."

The teacher spotted another question, a student raising it's antennae questionly and granted the student permission to speak with a wave of her tentacles.

"Do they use these bones as weapons?"

"Hmmm, as a basic and crude weapon, yes. Humans can close their hand to form a blunt object and strike with it. Their strength lies in throwing objects however, using superior accuracy and speeds than most other species on their planet. They are able to achieve these speeds due to muscle elasticity and various other factors such as the length of their arms and the way their bodies can twist and rotate."

One of the military students, a Jarn, quickly asked a question.

"So...they are predators?"

"Yes and no. Hunting played an important part of their earlier years but they also eat flora, they are an omnivore. They can forego meat just like they could eat both. They are quite adaptable to be honest."

"Back on topic, a human can lose a limb without suffering great loss if treated in a reasonable amount of time."

The students expressed shock and outrage at the notion, many feeling their own appendages protectively as if they were also at risk of being cut up.

"They can just grow them back!?"

"They do not grow back, no. However, human bodies are quite receptive or have no reaction to many materials. As such, they often replace lost limbs with fake ones, made from wood, metals or various other polymers. Such replacements usually reduce function of said limb slightly but in some cases, the prosthetics have shown to be an improvement upon the human's ability."

To demonstrate, she called out to the previous student who had asked a question, the Jarn.

Say, Toomouk, what happens if in an accident, that pincer would break off?"

"Err well, slow and painful death as all liquid pours out of my husk. Perhaps if a trained medical officer was nearby, say 200 heartbeats away, there could be a chance to patch it. Even after surviving however, the integrity of my shell would be compromised, I'd likely become a pariah, shunned by family and society."

The teacher nodded, knowing what the answer was but wanting to let the other students also hear first hand.

"In some cases, for organ related damages, humans can also receive a donation from another human, in order to replace said organ. I know what you'll ask but no, they do not kill another one in order to harvest it. Some organs have redundancies and humans can part with the extra one. Other times, a recently deceased human organs can be made available to transplant.

Recently in their history too, they have begun making synthetic organs with some varying degree of success. So far, only the head, where the brain is located, cannot be saved in such ways. This however, has not stopped them trying."

Scoffs and various insults flew from the more religious species, condemning this as barbaric acts only soulless savages would do.

"Please, calm down. Now, I have a video to show you. This is not for the faint of heart however and you may be excused if this proves too much for you to endure."

The video began playing on every student's personal computer, showing a strange creature tied to some wooden apparatus. Other of the same creatures surround it, many with rudimentary contraptions in their hands. Audio is heard, the creatures speak to the one tied up and seem unsatisfied with the reply, using their tools to strike at it, scouring deep gashes into its body, a red liquid seeping out.

One of the creatures approaches the bound one and uses a metal tool, tying it to one of the creature's small limbs. It speaks gibberish again and proceeds to pull hard on the metal object, tearing off the creature's limb, drawing great cries of distress and pain from it.

Quite a few of the students turn off their displays in disgust, two of them exiting the room and looking pale. The video continues on for some odd minutes, the creatures becoming ever creative in their ways of inflicting pain on the other. At one point, electricity is fed straight into the creature, causing it to convulse as if possessed.

One student vomits at this point, causing the teacher to pause the video.

"I believe that's enough, yes. It goes on for another 22 human minutes, culminating in the aggressors using a primitive kinetic weapon to throw a metal arrow into the head of the tied up human. This is a picture of said human, 10 years later. It survived that ordeal."

One of the military students banged its clawed hand on the desk in front of it.

"What!? This is absurd! No creature would survive such torture!"

"This video was verified as authentic."

Another student, nearly in tears, spoke up.

"What did the poor thing do to deserve such a punishment?"

'The context for this video was that this was an interrogation of a prisoner and to extract information from it.'

"Couldn't they simply have plugged it up to an MVC?"

"The humans have not yet discovered how to build a Memory Visualization Computer yet."

"Where did you really get this video and all this information on their anatomy and biology? There's no way this was up on their communications network!"

"Indeed. For better or worse, the humans have this..fascination with preserving history. They collect even the most trivial things such as flags from past wars and even rations from said wars. We were able to collect most of this information on our own, in order to make sure it was accurate but when we contacted them, they also provided much of the same information. They did not hide much."

"We've made contact with them then? And they volunteered this information willingly? Not even the Jarn have told us how their biology works and we've been allied for 400 years!"

"There are 2 prevailing theories on why the humans shared their information so openly.

The first goes that humans love to share everything and want to learn the same about us. They assume that because they were open, we will be as well. The other is that it's a form of psychological warfare, making us scared of them."

The student that had been agitated calmed down, sitting back down and talking to himself.

"How can we even kill them..."

One of his fellow military students tried to reassure him.

"Hey, maybe these humans could survive on a deathworld. Worse case, we throw them on one!"

Hearing that, the Teacher chimed in.

'Wonderful observation! They are actually from the only known category 5 death world. Isn't that fascinating?"

A student at the back raised a twig, asking a question.

"What are deathworlds again?"

"I figured some of you wouldn't know this yet, the non deathworld species tend to gloss over it. They are environments in which there are active threats to the primary sapient species of a planet. For example, the Nwar sitting in the back there, with the sharp fangs, comes from a category 1 deathworld. There are large thunderstorms on his home planet that can be fatal."

Mrs Moldrin drank a bit of water, clearing her throat.

"A category 2 deathworld would have 2 types of threats to life for the primary advanced species of the planet. Threats can be classified in their own sub category such as: Flora, aggressive plants that may poison or purposely try to kill. Fauna, strong predators that can eat or kill but also smaller creatures that may also have toxins or poisons. Diseases, such as viruses and dangerous bacteria. The environment; the storms on Nwar's planet, dangerous temperatures and many other disasters. And finally, outside of the planet's environment, such a powerful radiation, common asteroid or meteorite striking the planet."

"A category 5 planet like Earth, which is what the humans named their home world, has all of the above threats. Perhaps we will even have to reclassify it as a category 6 because of the immense biodiversity of Earth. It is hard to put an exact number on it, but there are something like 8 million different species on Earth, when accounting for flora and fauna. Compared to some of our worlds, like Voltuna which boasts 237 different species, it is a few orders of magnitude higher."

The class sat silently, overwhelmed by the information it had been given.

"Now imagine growing up where flora can kill you, storms and icy conditions or even the sun or asteroids can. On top of that, creatures that are neither your prey or predator, simply killing you out of indifference or because of fear. And not only surviving on this planet but becoming the dominant species! This is what makes humans so interesting."

"You say 8 million species, but what kind of climate could accommodate all that?"

'Great question! The various zones on Earth can vary from minus 70 degrees up to high 50's. Every biome contains its own specific species that live within the ranges of climate there. This is due to their distance from their star and the warmth of it. Humans can live from minus 60 to plus 60, but prefer moderate temps ranging from 0 to 30."

Lso'na raised a claw to ask a question.

"What about population wise?"

"Currently, they are around 12 billion humans. Reproduction wise, the female of the species will produce the offspring inside of her , carrying it until birth as mammals do. This process lasts 10 human months on average."

The Jarn sensed an opening for something that would affect a possible war.

"How many offsprings and how often do they reproduce?"

"Usually, a singular offspring per bearing. Although 2 and 3 aren't unheard of, with more than 4 being edge cases. The female may begin the process anew as soon as the previous offspring is born. If their focus was population, they could likely double their

current population in 2 years. They can have offspring after maturity, usually counted as 16 years in human time. However many wait later in life when their station is more determined, from their 20's to 30's. The females have up until their late 40s and the males are always fertile. While we're on this general topic, humans can live up to 140 years but most pass away due to other complications before that."

"Why are we even studying them if they aren't FTL and live very far away?"

"I was hoping to tell you at the end of the week but they now possess FTL drives, taken from some of the federation's ships. There was a small conflict due to a misunderstanding in which the humans seized three vessels. No loss of life occurred and we have begun talks with them."

She took a long pause, letting the students digest the news before she had to tell them the rest. Many were clearly in denial, their reactions similar to learning that a creature from a horror movie was on the loose.

"In matters that concern us more directly, four human students will be joining the academy next week. Anyhow, we still have 5 classes before they are due to arrive and we will learn more of them in time. This will be all for today, you're excused. If any of you have concerns, I suggest you contact your species diplomat onboard the station."

The students exited the class, a mix of apprehension, outrage and sadness exuded from their demeanor. Few seemed to be thrilled by this news, all save for one. Lso'na. After everyone left, she approached Mrs Moldrin with some trepidation.

"I was wondering if I could have a copy of their network? To help study them more before their arrival of course, for science."

"Well, it is being made public information, so I don't see the harm. I'm glad to see you take an interest in this Lso'na, most of your fellow students could learn something from you. Here, I'll do a direct transfer to your school email."

Lso'na thanked the teacher, hurrying to get out of class. She went straight to her lodgings, fearing to be unable to control her body. She recalled last night, how she found it interesting looking up the human's so-called 'internet' on her father's computer, from the classified files that pertained to their species. She had wandered aimlessly for a few minutes, looking for anything out of the ordinary.

She'd even searched for her own species but to no avail. Of course they wouldn't know her species name she had then thought, what she would have to do is search by description. Scales, claws, talons, wings and horns, the results had astounded her. The humans had a word for her kind, Dragon. She was amazed, no other species yet encountered had created art of other species without meeting them. She only had a few minutes before her father came back however, so she hurried her browsing. It was then that she found the unthinkable, the humans had even drawn her kind as some kind of sexual fantasy. She was quite taken aback.

A few more searches and she realized something crucial by what she found on their internet; humans would mate with almost anything. For a species like hers, where mating occurred once every century and more focus was spent on wealth accumulation, this was quite the finding. Her tongue danced excitedly inside her maw, hoping there'd be a few males in the four students coming to the Tar Meena academy.

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Hey, let me know what you think. Thought about what a school like(Late highschool/Early College) alien setting and what it could entail.

Edit: fixed a few typos.